

**Site Name: ASARCO East Helena Smelter - RCRA Corrective Action**

Prepared by Linda Jacobson  
RCRA  
(303) 312-6503

**Site Status:**

The East Helena plant is a custom lead smelter situated on approximately 142 acres which operated since 1888. The smelting and processing operations were suspended in April 2001. The smelter is located in East Helena, Montana. As of the 2000 census, there are 1642 people, 694 households, and 462 families residing in the town. Of the 694 households, 30% have children under the age of 18 living with them and 12.8% have someone living alone who is 65 years of age or older. In the town the population is spread out with 25.2% under the age of 18, 6.6% from 18 to 24, 29.8% from 25 to 44, 22.1% from 45 to 64, and 16.3% who are 65 years of age or older. The per capita income for the town is \$15,893, with 8.6% of the population and 7.5% of the families living below the poverty line.

On-site aquatic habitat areas include the Lower Lake, the Upper Lake, and the marsh areas south and east of the Upper Lake. Off-site aquatic habitat areas include Prickly Pear Creek, which flows along the eastern site boundary. Terrestrial habitat areas include both on-site locations near buildings and stockpile areas as well as off-site upland areas in the surrounding Helena valley that may have been impacted by smelter air emissions.

The primary contaminants of concern are heavy metals. These include arsenic, cadmium, copper, iron, lead, manganese, and zinc.

**Response Status of Individual Sites: OUs, removal, remedial, estimated time to completion, O&M, length of O&M period.**

As a result of a Consent Decree effective May 5, 1998, the RCRA corrective action process was initiated. Based on the findings in the Current Conditions/Release Assessment Report, EPA determined interim measures were to be implemented for groundwater, for the Acid Plant, and for Lower Lake sediments and other stockpiled soils.

Revised work schedule for the next three (3) years: The RFI is being conducted in two phases. The Phase I RFI Site Characterization Draft Report was submitted to EPA on April 1, 2003. On July 7, 2005, ASARCO submitted responses to EPA's comments on the Phase I Report. The Phase II RFI will consist of additional site characterization and assessment of human health and ecological risk. The information gathered by the RFI will be used to prepare a RCRA Corrective Measures Study for the East Helena Facility.

**Near term costs, total estimated cost of work for the next 3 years.** Since the RFI has not yet been finalized and a work plan for human health and ecological risk assessment is still in the development stages, cost projections are very general estimates at best. There will be additional interim and final remediation measures which address source areas including the contaminated soils between Upper and Lower Lakes and the Lower Lake contaminated soils. It will also be

necessary to install a full-scale groundwater interception and treatment system, potentially a permeable reactive barrier. General estimates are given below:

**Gross Cost Estimate Ranges for Short-Term and Long-Term RCRA Corrective Actions at the East Helena Smelter Facility:**

Completion of Phase I RFI  
Installation of Additional Wells  
Ongoing Groundwater & Surface Water Monitoring  
Phase II RFI and Risk Assessment Activities  
Inspection and Maintenance of CAMU and Other Areas      **Estimate: \$250,000 - \$500,000**

Interim Measures  
(Address/stabilize Source Area Releases)      **Estimate: \$25 to \$30 Million**

Stabilization of Groundwater Releases      **Estimate: \$8 to \$25 Million**  
(installation of one or more GW Interception/Treatment Systems)

Cleanup/Stabilize Further Surface & Near Surface Soils      **Estimate: \$2 to \$15 Million**  
on Plant and Eastern Fields

Long-Term O & M      **Estimate: \$20 to \$60 Million**  
(groundwater interception and treatment systems)  
If full-scale permeable reactive barriers (PRBs) are effective, O&M will be minimal. The worst-case, upper end estimates are for conventional pump-and-treat systems.

**Enforcement status:**

**Enforcement Goals for 2006 and 2007**

Region 8 will ensure that ASARCO continues to adhere to the provisions and requirements of the 1998 RCRA Consent Decree as the RFI is finalized and the risk assessment work commences. Additionally, EPA plans to negotiate the implementation, by ASARCO, of interim measures to further address source areas and stabilize the groundwater releases.

Address financial assurance requirements: ASARCO remains unable to make the required financial assurance demonstration using the mechanisms outlined in the East Helena Consent Decree. EPA agreed in paragraph 36 of the subsequent national Consent Decree, No. CV 02-2079-PHX-RCB, February 23, 2003, to forego penalties for any noncompliance with financial assurance requirements in RCRA or CERCLA consent decrees in calendar years 2003-2005.